

Preliminary Report:
Search for the Orchard
Gaines' Mill Unit
Richmond National Battlefield Park
Hanover County, Virginia



Allen H. Cooper
National Park Service
Philadelphia Support Office
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MANAGEMENT SUMMARY

Archeological excavation of the seven test units in the potential location of the historic orchard resulted in the identification of two root patterns approximately 25-30 feet apart, consistent with historical orchard management practices. However, the location of two trees does not provide conclusive evidence. Additional testing is recommended in both the subject area as well as the alternate location northeast of the Watt House. A structural posthole was identified in the area suggesting the location of a post-in-ground structure associated with the historic plantation. Finally, a prehistoric component of unknown temporal association was identified.

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1 Introduction

The Gaines' Mill Unit of Richmond National Battlefield Park is located approximately fifteen miles northeast of the City of Richmond, Virginia, in Hanover County (Figure 1). It contains the location of the Confederate breakthrough of the Battle of Gaines' Mill on June 27, 1862 on a portion of the historic Springfield Plantation. Extant resources from that event include the Watt House (LCS10232), Union rifle pits, road traces, and topographic features. Additional Civil War resources include Confederate trenches from the Battle of Cold Harbor and road traces. In addition, archeological remains of Springfield Plantation are believed to exist beneath the existing cover of lawn and field within the 67.8 acre unit. These resources include the foundations of barns, outbuildings, slave cabins, orchards, fence lines, and activity areas. The National Park Service is conducting an extensive program of landscape analysis, interpretation, and restoration at the Gaines' Mill Unit. The Cultural Landscape Inventory Program's analysis of documentary sources and the existing landscape features have revealed significant changes in the organization of circulation patterns and field boundaries since the Civil War and have identified the need for archeological investigations to develop a complete view of the sites' spatial organization through time.

The Cultural Landscape Report (Land and Community Associates 1999), identified the need to locate the Watt House Orchards as a high priority for archeological identification (Idid:175). The orchards were significant features in the Battle of Gaines' Mill as the terminus of the successful Confederate assault across Boatswain's Creek to the position of the 5th Massachusetts Battery. The battery was located to take advantage of a cleared path, free of trees and other vegetation, across the creek to the opposite hillside. An ideal restoration of the 1862 landscape would include this feature. Two locations were identified as likely; one southeast of the Watt House and the other to the northwest. This report documents investigations in the latter location.

To this end, a program of archeological investigation to identify the location of the orchard on April 12-16, 1999 by members of the Philadelphia Support Office of the National Park Service Archeology and Cultural Landscape Programs; Nancy Brown, Allen H. Cooper, Eden Dutcher, and Michael Tull.

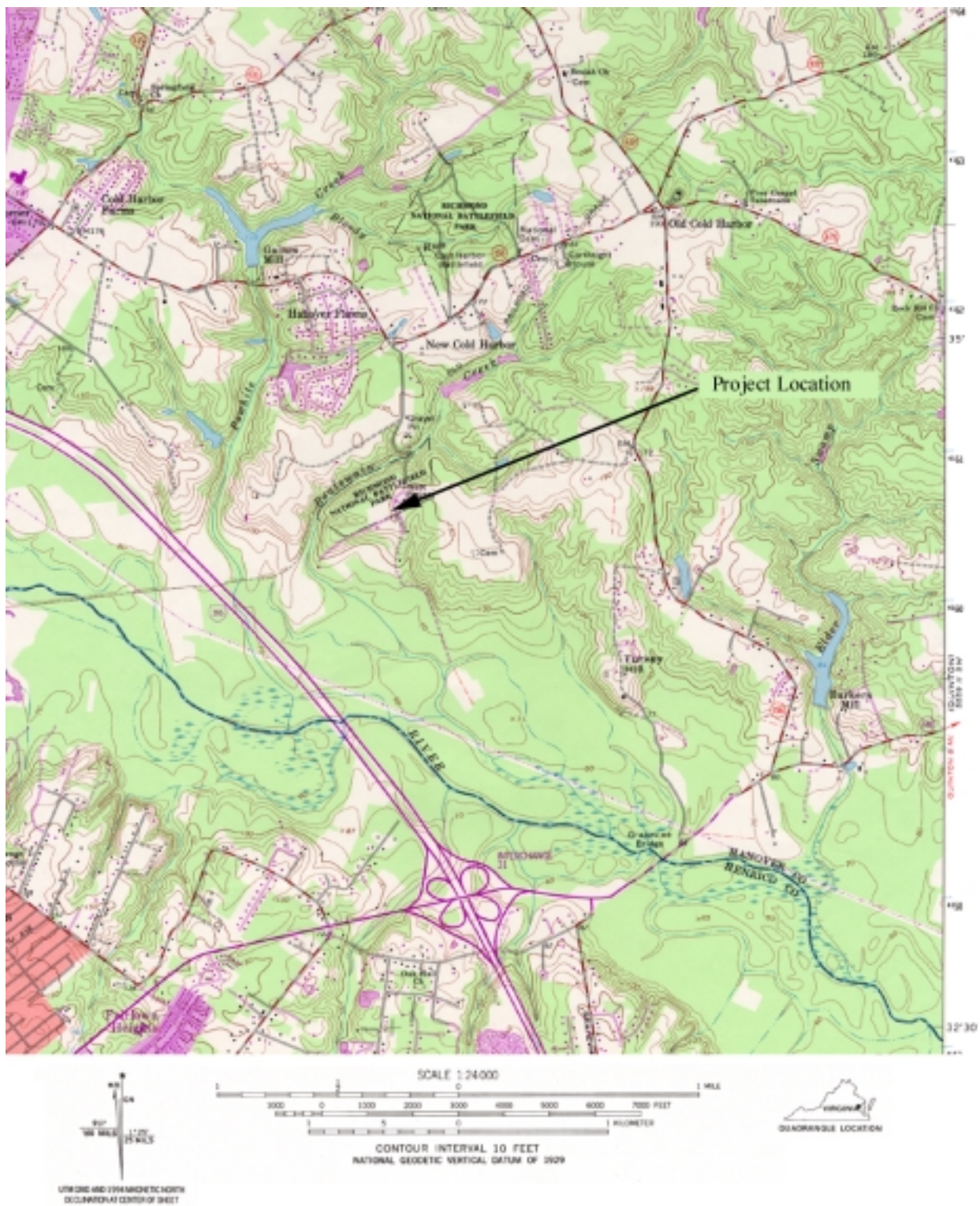


Figure 1: Project location. Detail from USGS Hanover Quadrangle 1:24000 Series Topographic.

2 Background

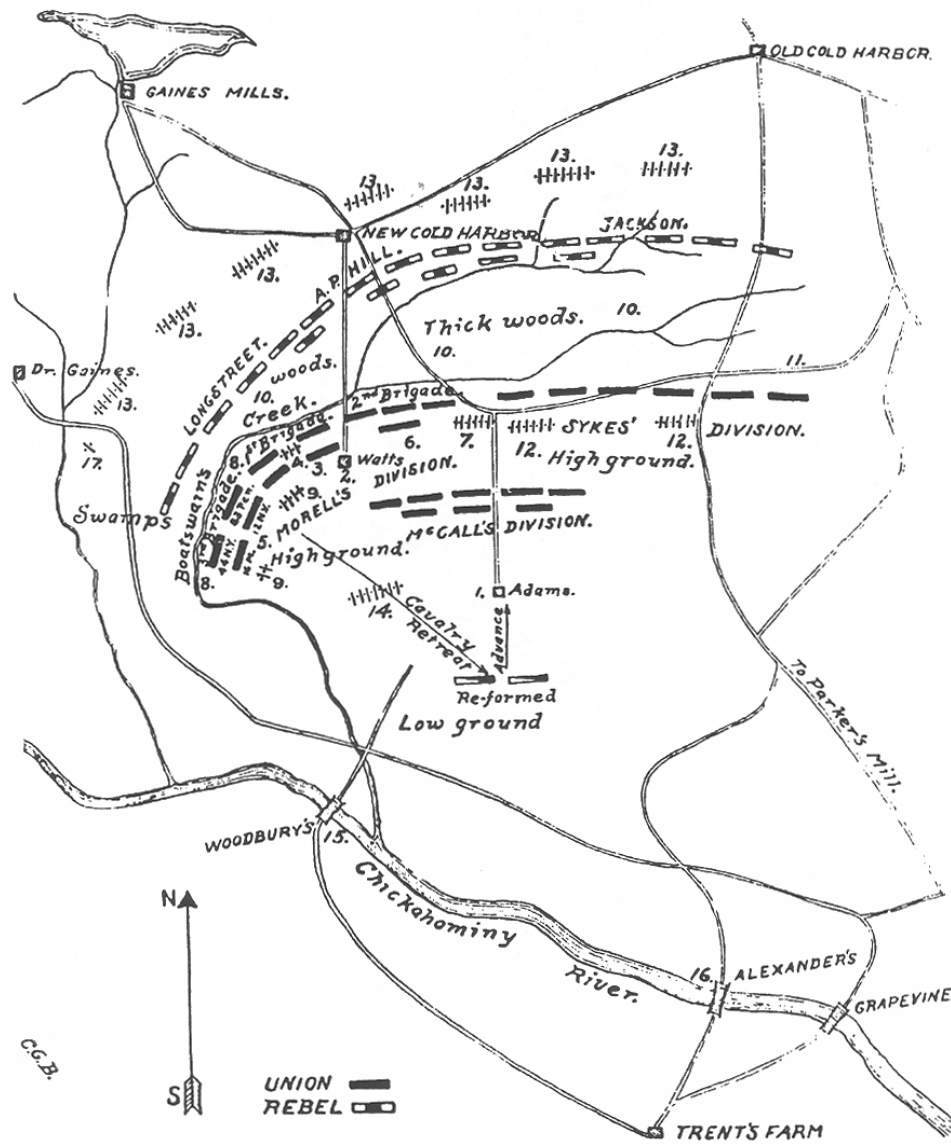
2.1 History and Significance

The Gaines' Mill Unit of Richmond National Battlefield Park consists of 59.7 acres of the historic "Springfield Plantation". The plantation originally encompassed some 529 acres and had been occupied by Sarah and James Watt since at least 1832 (Land and Community Associates 2000: 6). The farm was typical of upper class plantations with 28 slaves providing the labor for its market crops of corn, oats, and wheat. Extant above-ground historic features include the Watt House (built around 1832) and road traces. The Watt House sits at the edge of a plateau above Boatswain's Creek. Steep, wooded slopes separated the creek from the crest of the hill.

On June 27 the park unit formed the left wing of General Fitz-John Porter's Fifth Corps of the Union Army. During the battle, the 5th Massachusetts Battery posted guns near the crest of the plateau, firing through openings in the woods and over the heads of the infantry posted on the slope (Figure 2). Around 7:30 in the evening Confederate Brigadier General Hood's 4th Texas Infantry broke the Federal line and advanced toward the guns of the 5th Massachusetts, capturing them at the close of the battle. The battery had been posted "...near a peach orchard in rear of the line of battle..." (Land and Community Associates 2000: 24). Accounts place the orchard some 300 yards to the rear of the Watt House (ibid: 25) although there is considerable dispute whether it was located northeast or southwest of the Watt House (see Land and Community Associates 2000: 22-27). Identification of the orchard location is critical as it would place both the point of Hood's attack, as well as establishing the location of the openings in the woods down to Boatswain's Creek.

The orchard described in accounts of the battle contained both apple and pear trees (Land and Community Associates 2000: 24). Both species may be propagated in sandy loam soils typical of the site. Contemporary horticulturists recommended planting apple trees 30 (Downing 1857: 60) to 33 (Thomas 1852: 85) feet apart if a separate orchard lot is set aside for them. Downing recommended a distance of 50 feet if grain was to be grown in between the trees. Downing recommended that pear trees should be planted at 30 feet (Downing 1857: 412) while Thomas recommended 20 feet (Thomas 1852: 85).

GAINES MILLS.



1. General Porter's First Head Quarters. 2. His Second Head Quarters.
3. Martindale 4. Section of Weedon's Battery. 5. Butterfield. 6. Griffin.
7. Martin's Battery 8 & 8. Ravines. 9 & 9. 5th Mass. Battery. 10.
- Thickly wooded, low, swampy ground, through which the
- Rebels charged. 11. First attack of Rebels on Union lines. 12.
- Other Union Batteries. 13. Rebel Batteries. 14. Position of
- batteries when the repulsed Cavalry rode through them
- and put them in disorder, and caused the loss of many guns.
15. First bridge destroyed. 16. Second bridge destroyed.
17. Gun aimed at Gaines House during the morning.

Figure 2: Map of Gaines' Mill from "History of the Fifth Massachusetts Battery".

2.2 Archeological Research Questions

The Gaines' Mill Unit is listed on the National Register of Historic Places under Criterion A (associated with events that have made a significant contribution to the broad patterns of our history) and B (associated with the lives of persons significant in our past) for its association with the Civil War. Investigation is underway to determine if the property is also significant under Criterion D (yielded, or may be likely to yield, information important in prehistory or history.) The orchard would contribute to its significance under Criteria A and B. However, Springfield Plantation was typical component of the middle to upper middle class slave-based agricultural production units that reached their zenith at the start of the Civil War. These units were locally self-contained yet linked into regional, national, and international economic systems that consumed their production and returned manufactured goods in exchange.

Slave-based agricultural plantations did not appear full blown but were in continuous development to adjust to the external economic environment; the demand for crops changed, prices rose and fell, capital for improvements was in greater or shorter supply. These factors simultaneously effected both the scale and organization of the plantations. Springfield Plantation, being typical of the middle to larger scale tidewater production units and inhabited during the development, fluorescence, and decline (and partial restoration) of this type of system should contain archeological resources that would allow for examination of these changes over time. Archeological Resources that address these changes would be eligible under Criterion D (resources that have yielded, or may be likely to yield, information important in prehistory or history.)

A partial listing of important research questions that may be addressed at the Gaines' Mill Unit are:

- How did the physical organization of the plantation change through time? What were the major Did domestic residence patterns change with time?
- How did the structure of the inhabitants change through time? When were slaves added or subtracted? What was the age/sex/race structure and did it correlate with economic changes? Were overseers used?
- How successful were the owners in obtaining high status manufactured goods in return for their labors?
- How was agricultural production modified to adjust to the post-war environment?

Review of the historical records which are an essential component of historical archeology indicate that many of the above research questions could be addressed. Discovery of the location of the orchard would help to answer the first and possibly the third and fourth questions above.

2.3 Environmental Setting

The project area is situated on a roughly level terrace overlooking the Chickahominy River less than a mile to the west and is bordered to the north by Boatswain's Creek and the steep slopes defining its bank. The immediate project area as well as land to the south is managed for agricultural production with soybeans as the principal crop. Historically, wheat was the principal crop. Land to the north is covered with secondary forest composed primarily of pine and scattered hardwoods, most of which are less than one hundred years old. Soils in the project area are Suffolk loamy fine sand, 2 to 7 percent slopes. This is a gently sloping, well drained soil on broad, slightly convex ridgetops on the Coastal Plain. Typically, the surface layer is dark grayish brown and yellowish brown loamy fine sand about 14 inches thick. The subsoil is about 22 inches thick. It is mostly strong brown, friable, slightly plastic sandy clay loam. The substratum to a depth of about 72 inches is yellowish brown and strong brown sandy loam (Hodges *et.al*: 1980: 62).

A typical pedon from a cultivated field has the following characteristics:

- Ap - 0 to 9 inches: dark grayish brown (10YR 4/2) loamy fine sand; weak fine granular structure; very friable nonsticky and nonplastic; common fine roots; neutral; abrupt smooth boundary.
- A2 - 9 to 14 inches; yellowish brown (10YR 5/6) sandy loam; weak medium granular structure; very friable, slightly sticky and nonplastic; few fine roots; common clay bridging; strongly acid; clear smooth boundary.
- B1t - 14 to 18 inches: strong brown (7.5YR 5/6) sandy clay loam; very weak medium subangular blocky structure; friable, slightly sticky and slightly nonplastic; few fine roots; common clay bridging; strongly acid; clear smooth boundary.
- B2t - 18 to 36 inches: strong brown (7.5YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable, slightly sticky and slightly plastic; few fine and medium roots ; this discontinuous clay film; very strongly acid; clear smooth boundary.
- B3 - 36 to 51 inches; yellowish brown (10YR 5/6) sandy loam; very weak coarse subangular blocky structure; very friable, slightly sticky and slightly plastic; very strongly acid; clear smooth boundary.
- C - 51 to 72 inches; strong brown (7.5YR 5/6) sandy loam; massive; very friable, slightly sticky and nonplastic; very strongly acid.

All soils encountered within the project area were consistent with this description.

3 Archeological Investigations

3.1 Methodology

Archeological investigations were conducted in accordance with the National Park Service's "Secretary's Standards for Archeology." Soil plans and profiles were documented during excavation by photography and measured drawings. Tests were excavated to sterile soil or to the interface with suspected historic features, with all soils passed through one-quarter inch hardware cloth. Soil colors were recorded using the Munsell soil color system. Curatorial activities were conducted in accordance with the NPS's *Museum Handbook*. All materials associated with this project are curated at Richmond National Battlefield Park under accession RICH-164.

An area measuring 50 feet east/west by 35 feet north/south in the anticipated location of the orchard was selected for investigation and a grid established with a transiting alidade from the park boundary marker. The area was divided into five-foot-square units and numbered from one to seventy from the northwest to the southeast. Units were selected for excavation using a random number table with numbers taken two at a time with the exception that no two units may abut each other.

The location of the excavation had been plowed annually for at least the preceding three decades resulting in the formation of a well developed plow zone transitioning abruptly into the sterile subsurface clay loam soil at depths between 0.6 and 1.2 feet. Because the location was roughly level, although near the field border, it was anticipated that artifacts associated with historic activities at the site had been transported vertically, but not horizontally to any great extent. As the site had been used for a single purpose throughout its entire existence any artifacts were anticipated to provide information on any subsurface features discovered. The plow one was screened for artifacts through one-quarter inch hardware cloth resulting in both useful additional information on those features as well as identifying a prehistoric component that appears confined to the plowzone.

Excavation proceeded to the interface of the plowzone and subsurface soils. Subsurface features (with the exception of Feature 23) were not excavated but were documented in place. Soil samples were collected from each for further analysis. Units were designated by the coordinates of their southeast corners and all measured five feet square (Figure 3).

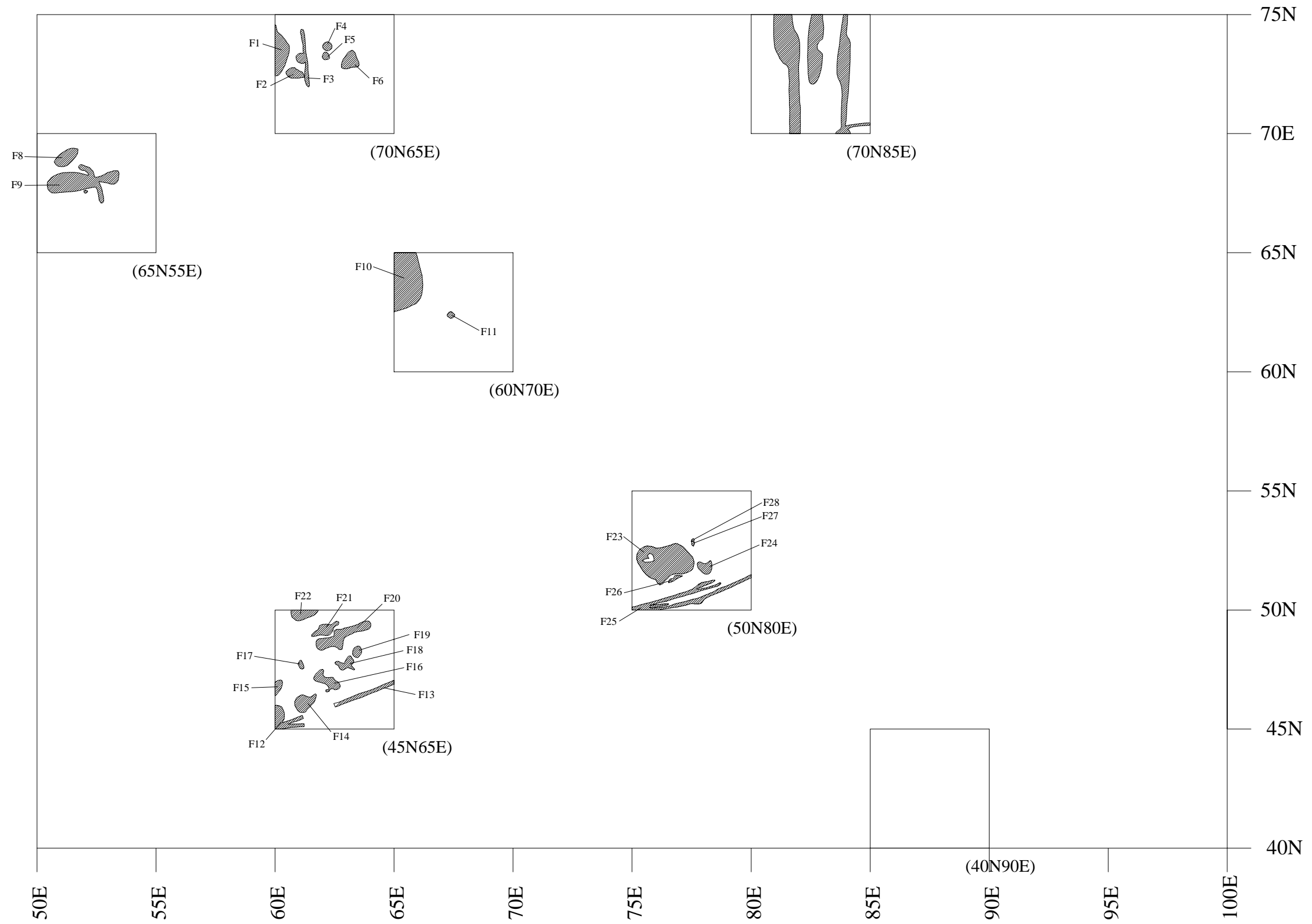


Figure 3: Location of archeological tests.

3.2 Field Investigations

Unit 70N65E was the northwesternmost unit in the investigations. Artifacts recovered from the plowzone (which measured 0.9 feet thick) included (see Appendix 1) Redware (1), clear glass (1), dark green glass (1), cut nail fragments (3), brick fragments (1) and a variety of byproducts including daub, cinder, and coal. With the possible exception of the clear glass fragment, all of the materials could date to the early nineteenth century. Six features were identified in the subsoil (Features 1 -6). Most are characterized as small to medium diameter oval intrusions around one foot in diameter located in the northwest corner of the unit. These cluster around a larger feature measuring approximately one and one-half foot in diameter around which the smaller features cluster. The features appeared to have no artifacts within their fill and are the result of an organic process; possibly roots from a tree measuring six feet in diameter.

Unit 70NE85E was located along the northern boundary of the test area and lay closest to the Watt House. Features representing plowing activity covered most of the unit (these were not designated features). The plowzone was thickest here, measuring almost 1.4 feet thick indicating soil deposition in this area. The artifact assemblage in this unit was the most diverse and largest from the entire excavation. Historic artifacts included Whiteware and Rockingham ceramics (1 each), modern green glass (11), complete (3) and fragmentary (6) cut nails, brick fragments (9) an unidentifiable multi-part iron object, and byproducts such as daub, iron flakes, coal and cinder. These artifacts (with the exception of the modern green glass) date to the middle of the nineteenth century based on the Rockingham ceramic fragment. Prehistoric artifacts included four lithic flakes a lithic "chunk" all made from quartzite.

Unit 65N55E was the westernmost unit in the investigations. It contained an ovoid feature with lateral projects interpreted as a rodent burrow (designated Features 8 and 9). Artifacts recovered from this unit included a fragment of dark green glass, cut nail fragments (4), a brick fragment, and byproducts such as daub, cinder, coal, and iron flakes all possibly dating from the early nineteenth century. Prehistoric artifacts included two interior flakes from quartzite and a possible hammerstone.

Unit 60N70E was located near the center of the grid. It contained a portion of an ovate feature measuring two and one-half feet north/south and one foot east/west (Feature 10), and a smaller one measuring only 0.3 feet in diameter (Feature 11). No artifacts or differential fill were observed in Feature 10 although



Figure 4: Photograph of Unit 70N65E plan view.

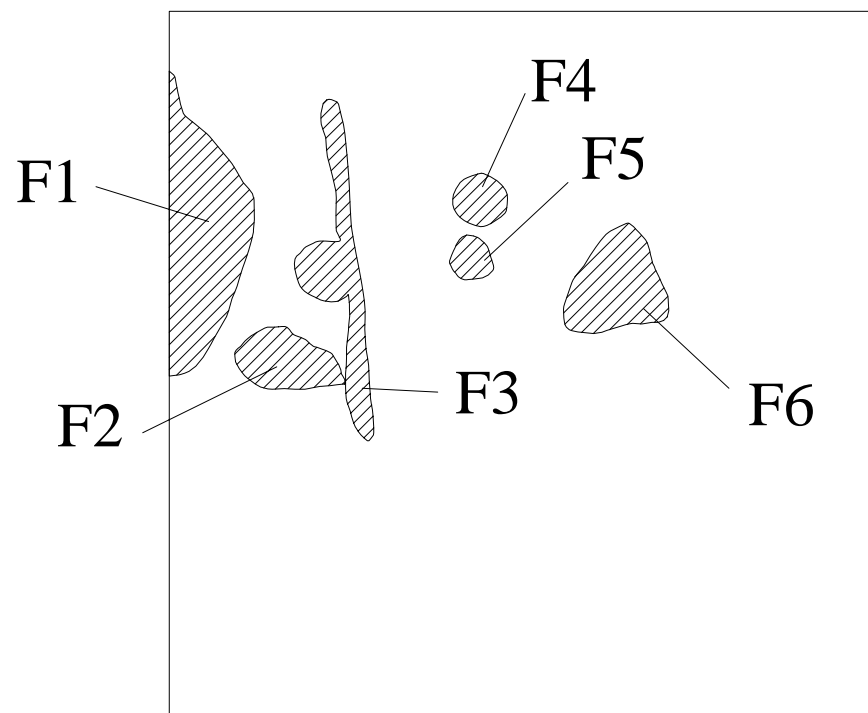


Figure 5: Unit 50N80E plan view.



Figure 6: Photograph of Unit 60N70E plan view.

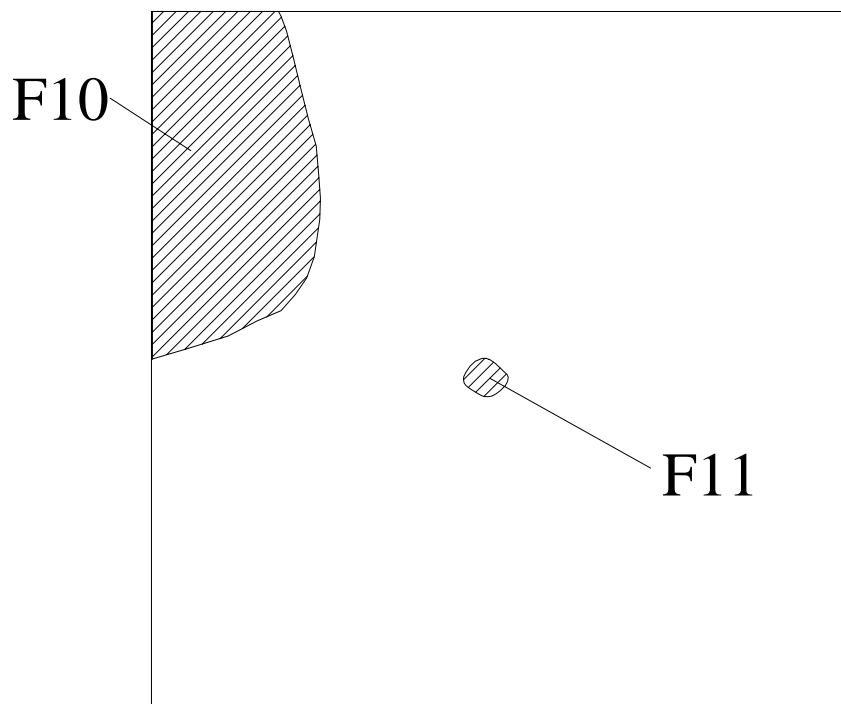


Figure 7: Unit 60N70E plan view.

its similar shape to a historic feature in Unit 50N80E suggests that it may represent a structural element. Artifacts recovered from this unit included modern glass (one clear and two green) the other artifacts were indicative of the nineteenth century: a cut nails, cut nail fragments (3), daub, iron flakes, coal, and cinder.

Unit 50N80E contained a large posthole (Feature 23) measuring 2.4 feet east/west, 1.5 feet north/south, and 1.7 feet deep. Feature 23 had a flat bottom and contained two iron spikes and a large iron lump of indeterminate date. Artifacts recovered from the plowzone above the feature included a fragment of Westerwald German Stoneware (dating from AD 1700 to 1775) (Figure 12), a fragment of Whiteware (AD 1810 to present), a fragment of dark green glass, four nail fragments of unidentifiable date, two brick fragments and historic byproducts such as daub, iron flakes, coal, and cinder. Prehistoric artifacts included a two lithic interior flakes and a single "chunk". Feature 23 may represent a structural element for an undocumented occupation or structure. The early ceramic fragment suggests an early nineteenth century date although occupation is historically known only from the 1830's. Similar postholes, when they occur in linear patterns often signify the presence of a "post-in-ground" structure which, depending on date, would have served as the principal residence of the site or at a later date as slave quarters, or possibly both if the occupation was sufficiently long (see Kelso).

Unit 45N65E was the southeasternmost unit in the study area. It contained a series of features (Features 12 through 22) that most certainly were created by a tree approximately five feet in diameter. This unit contained only a small assemblage of artifacts; a fragment of modern clear glass, four cut nail fragments, and byproducts including iron lumps, cinder, and coal. The plowzone was only 0.7 feet thick within this unit.

Unit 40N90E was located in the southeastern corner of the study area. It contained no features but a large range of artifacts were recovered; two fragments of clear glass (modern), one fragment each of Whiteware and dark green glass, two cut nail fragments, and a brick fragment. A leather strap fragment with a simple brad fastener is an intriguing object recovered from this unit. The long history of the field for agricultural production has afforded ample opportunity for the artifact to be lost or discarded from plowing activities. However, harness parts such as the leather strap could also have been lost during the unlimbering of the battery. Coal, cinder, daub, and iron flakes completed the historic assemblage. The prehistoric component was represented by a hafted endscraper (Figure 13) and interior flake, both of quartzite. The plowzone averaged one foot thick.



Figure 8: Photograph of Unit 50N80E plan view.

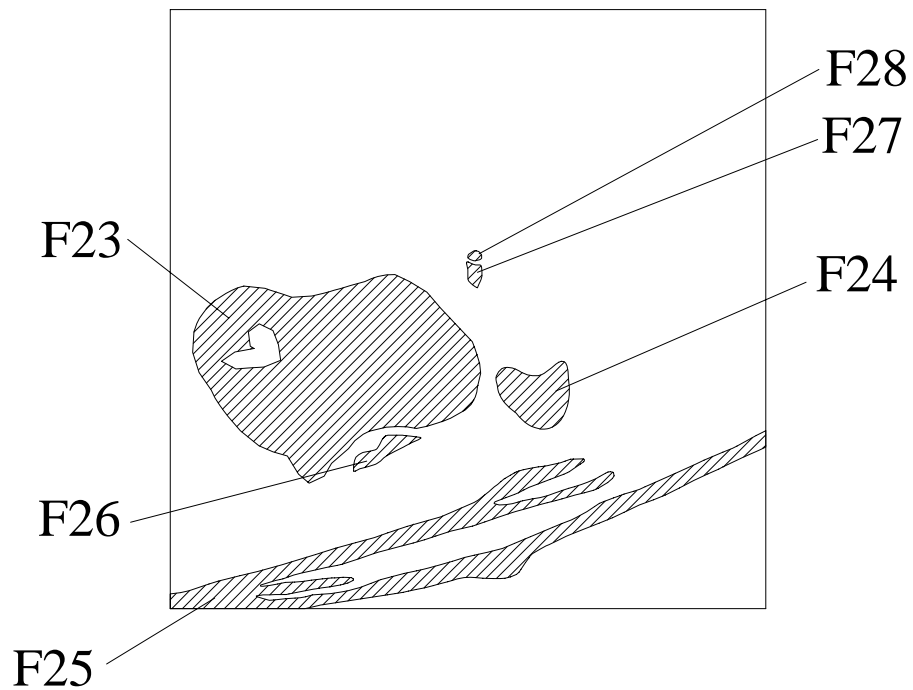


Figure 9: Unit 50N80E plan view.



Figure 10: Photograph of Unit 45N65E.

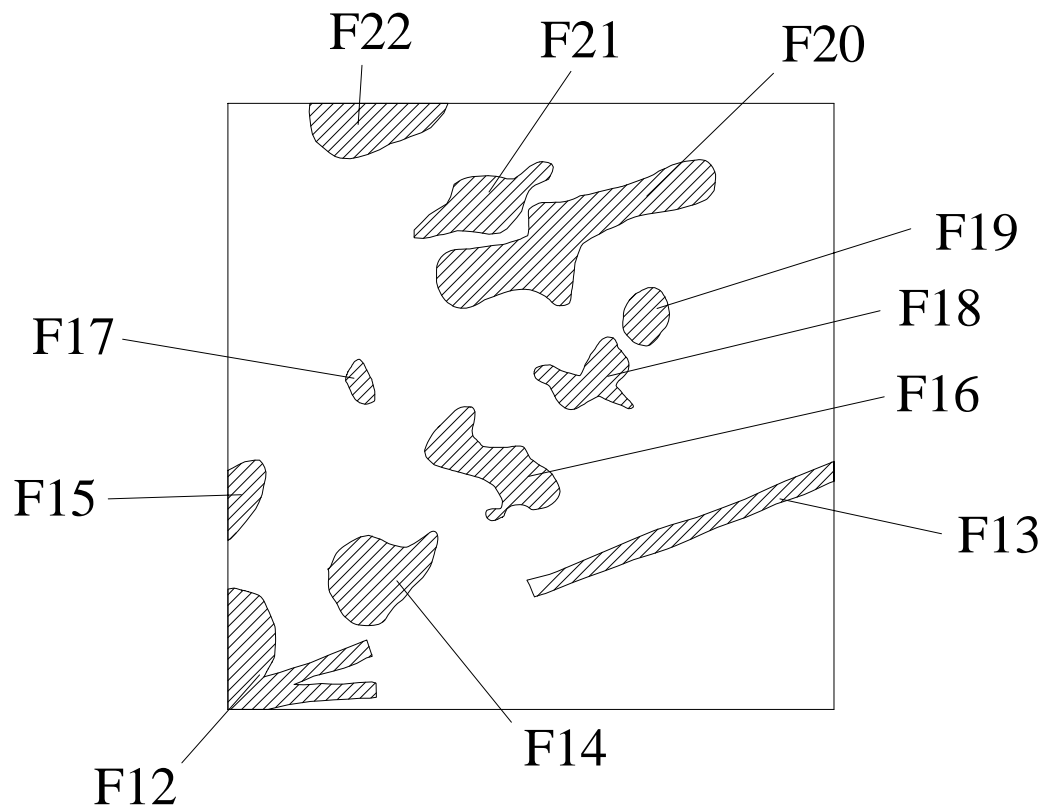


Figure 11: Unit 45N65E plan view.

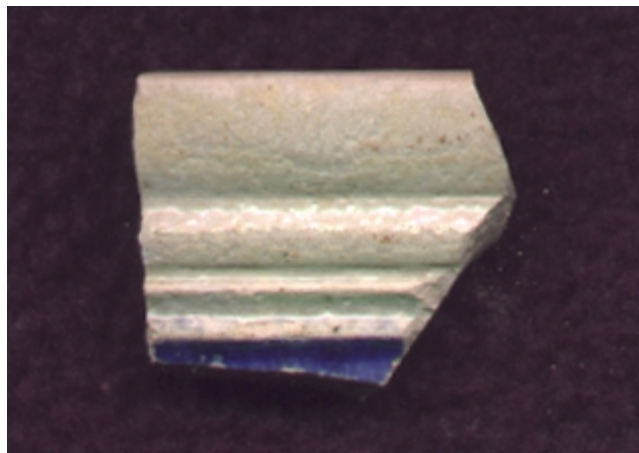


Figure 12: Westerwald stoneware fragment recovered from Unit 50N80E.

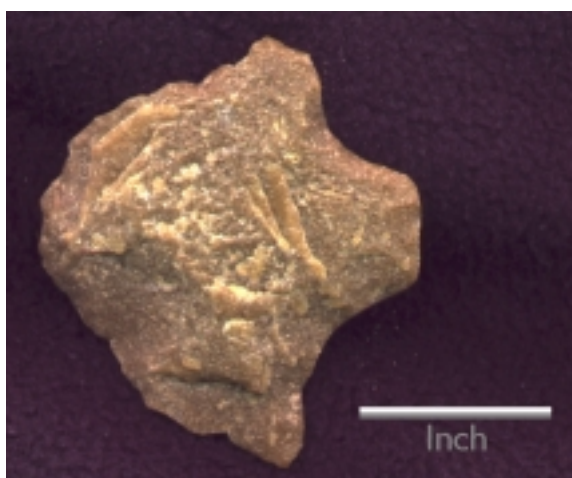


Figure 13: Hafted end scraper recovered from Unit 40N90E (actual size).



Figure 14: Hammerstone recovered from Unit 65N55E (actual size).

3.3 Results

Excavation of seven units within the anticipated location of the historic orchard revealed three archeological resources. The root patterns in Units N45E65 and N70E65 are approximately 25 feet apart and oriented roughly north/south. This layout is consistent with historical guidelines for orchards and may indeed represent the location of the 5th Massachusetts Battery. Additional excavations at the proper interval (25 to 33 feet) would provide resolution. The second resource is a clearly definable, early (first quarter of the nineteenth century) domestic component identified by the structural posthole, early ceramic, and building fragments including daub, brick, and nails. A post-in-ground structure with a wattle and daub chimney would not be unknown in tidewater Virginia, especially for use as slave quarters. Again, block excavation and excavation of Feature 10 would provide resolution. The third resource is the prehistoric site evidenced by the hafted end scraper, lithic debris, and possible hammerstone.

4 Conclusions

Archeological testing to determine the location of the historic orchard at the Gains' Mill Unit was inconclusive. Two patterns of features appeared to conform with expected root patterns of apple or pear trees and were within the recommended distances for planting by contemporary horticulturalists. However, two trees do not constitute an orchard. Additional testing at the correct intervals is necessary to provide conclusive evidence. Also, a comparative excavation of existing fruit trees would provide comparative data to conclusively determine their archeological signatures. The second orchard location alternative in the field east of the Watt House should also be examined. Phytolith samples taken from likely tree features during this investigation will be processed at that time.

There is the strong potential for the presence of a post-in-ground structure located in the area of investigation. Unit 60N70E should be re-excavated and Feature 10 examined. If Feature 10 proves to be a structural feature then complete exposure of the plow zone using a combination of machine and hand shoveling should be used to examine the area for the remainder of the post holes and any occupational features. The feature would likely pre-date the Watt House, or, conversely have functioned as a contemporary slave dwelling evidenced by the early ceramic recovered from the plow zone and the conservative construction style.

The prehistoric component at the Gaines' Mill Unit should be listed on the park ASMIS record system and with the State site files as a separate entity as it appears concentrated on the southern margin of the unit and most likely continues off site.

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6 Appendix 1: Catalog of Artifacts

CP_WITHIN	CAT_NMBR	OBJ_NAME	CNT	DESCR1	DESCR2	OBJ_DATE
N70 E65 PLOWZONE	RICH 1000	SHERD	1	Earthenware, coarse. Redware	body.	
N70 E65 PLOWZONE	RICH 1001	SHERD	1	Glass. Dark green.	body.	
N70 E65 PLOWZONE	RICH 1002	SHERD	1	Glass. Clear.	body.	
N70 E65 PLOWZONE	RICH 1003	BRICK FRAGMENT	1	Brick fragmnet.	miscellaneous	
N70 E65 PLOWZONE	RICH 1004	NAIL FRAGMENT	3	Nail, cut.	distal.	AD 1790 TO 1990
N70 E65 PLOWZONE	RICH 1005	IRON LUMP	2	Iron lump.	miscellaneous	
N70 E65 PLOWZONE	RICH 1006	DAUB	1	Daub.	miscellaneous	
N70 E65 PLOWZONE	RICH 1007	CINDER	3	Cinder.	miscellaneous	
N70 E65 PLOWZONE	RICH 1008	COAL	2	Coal.	miscellaneous	
N70 E85 PLOWZONE	RICH 1009	SHERD	1	Earthenware, refined. Whiteware.	body.	AD 1810 TO 1990
N70 E85 PLOWZONE	RICH 1010	SHERD	1	Earthenware, coarse. Rockingham.	rim.	
N70 E85 PLOWZONE	RICH 1011	SHERD	2	Glass. Green.	body.	
N70 E85 PLOWZONE	RICH 1012	SHERD	9	Glass. Light green.	body.	
N70 E85 PLOWZONE	RICH 1013	BRICK FRAGMENT	9	Brick fragment.	miscellaneous	
N70 E85 PLOWZONE	RICH 1014	DAUB	3	Daub.	miscellaneous	
N70 E85 PLOWZONE	RICH 1015	CINDER	3	Cinder.	miscellaneous	
N70 E85 PLOWZONE	RICH 1016	COAL	3	Coal.	miscellaneous	
N70 E85 PLOWZONE	RICH 1017	NAIL	3	Nail, cut.	complete.	AD 1790 TO 1990
N70 E85 PLOWZONE	RICH 1018	NAIL FRAGMENT	6	Nail, cut.	miscellaneous	AD 1790 TO 1990
N70 E85 PLOWZONE	RICH 1019	IRON FLAKE	11	Iron flake.	miscellaneous	
N70 E85 PLOWZONE	RICH 1020	UNIDENTIFIABLE	1	Unidentifiable. Iron artifact.	complete.	
N70 E85 PLOWZONE	RICH 1021	SHELL FRAGMENT	1	Crassostrea virginica.	miscellaneous	
N70 E85 PLOWZONE	RICH 1022	FLAKE	4	Flake, interior.	complete.	
N70 E85 PLOWZONE	RICH 1023	CHUNK	2	Chunk.	complete.	
N65 E55 PLOWZONE	RICH 1024	SHERD	1	Glass. Dark green.	body.	
N65 E55 PLOWZONE	RICH 1025	BRICK FRAGMENT	1	Brick fragment.	miscellaneous	
N65 E55 PLOWZONE	RICH 1026	DAUB	2	Daub.	miscellaneous	
N65 E55 PLOWZONE	RICH 1027	CINDER	3	Cinder.	miscellaneous	
N65 E55 PLOWZONE	RICH 1028	COAL	2	Coal.	miscellaneous	
N65 E55 PLOWZONE	RICH 1029	NAIL FRAGMENT	4	Nail, cut.	miscellaneous	AD 1790 TO 1990
N65 E55 PLOWZONE	RICH 1030	IRON FLAKE	2	Iron flake.	miscellaneous	
N65 E55 PLOWZONE	RICH 1031	UNIDENTIFIABLE	2	Unidentifiable.	miscellaneous	
N65 E55 PLOWZONE	RICH 1032	FLAKE	2	Flake, interior.	complete.	
N65 E55 PLOWZONE	RICH 1033	CELT	1	Celt.	complete.	
N60 E70 PLOWZONE	RICH 1034	SHERD	2	Glass. Light green.	body.	
N60 E70 PLOWZONE	RICH 1035	SHERD	1	Glass. Clear.	body.	
N60 E70 PLOWZONE	RICH 1036	DAUB	3	Daub.	miscellaneous	
N60 E70 PLOWZONE	RICH 1037	CINDER	3	Cinder.	miscellaneous	
N60 E70 PLOWZONE	RICH 1038	COAL	3	Coal.	miscellaneous	
N60 E70 PLOWZONE	RICH 1039	NAIL	1	Nail, cut.	complete.	AD 1790 TO 1990
N60 E70 PLOWZONE	RICH 1040	NAIL FRAGMENT	2	Nail, cut.	miscellaneous	AD 1790 TO 1990
N60 E70 PLOWZONE	RICH 1041	IRON FLAKE	3	Iron flake.	miscellaneous	
N45 E65 PLOWZONE	RICH 1042	SHERD	1	Glass. Clear.	body.	
N45 E65 PLOWZONE	RICH 1043	NAIL FRAGMENT	4	Nail, cut.	miscellaneous	AD 1790 TO 1990
N45 E65 PLOWZONE	RICH 1044	IRON LUMP	5	Iron lump.	miscellaneous	
N45 E65 PLOWZONE	RICH 1045	CINDER	4	Cinder.	miscellaneous	
N45 E65 PLOWZONE	RICH 1046	COAL	3	Coal.	miscellaneous	
N50 E80 PLOWZONE	RICH 1047	SHERD	1	Stoneware. Westerwald.	rim.	AD 1700 TO 1775
N50 E80 PLOWZONE	RICH 1048	SHERD FRAGMENT	1	Earthenware, refined. Whiteware.	body,	AD 1810 TO 1990
N50 E80 PLOWZONE	RICH 1049	SHERD	1	Glass. Dark green.	body.	
N50 E80 PLOWZONE	RICH 1050	BRICK FRAGMENT	2	Brick fragment.	miscellaneous	
N50 E80 PLOWZONE	RICH 1051	DAUB	1	Daub.	miscellaneous	
N50 E80 PLOWZONE	RICH 1052	NAIL FRAGMENT	4	Nail, UID.	miscellaneous	
N50 E80 PLOWZONE	RICH 1053	IRON LUMP	6	Iron lump.	miscellaneous	
N50 E80 PLOWZONE	RICH 1054	CINDER	5	Cinder.	miscellaneous	
N50 E80 PLOWZONE	RICH 1055	COAL	1	Coal.	miscellaneous	
N50 E80 PLOWZONE	RICH 1056	FLAKE FRAGMENT	2	Flake, interior.	miscellaneous	
N50 E80 PLOWZONE	RICH 1057	CHUNK	1	Chunk.	miscellaneous	
N50 E80 PLOWZONE	RICH 1058	SPIKE	2	Spike, UID.	complete.	
N50 E80 PLOWZONE	RICH 1059	IRON LUMP	1	Iron lump.	miscellaneous	

Appendix 1: Catalog of Artifacts (Continued)

CP. WITHIN	CAT_NMBR	OBJ_NAME	CNT	DESCR1	DESCR2	OBJ_DATE
N40 E90 PLOWZONE	RICH 1060	SHERD	1	Earthenware, refined. Whiteware.	body.	AD 1810 TO 1990
N40 E90 PLOWZONE	RICH 1061	SHERD	1	Glass. Dark green.	body.	
N40 E90 PLOWZONE	RICH 1062	SHERD	2	Glass. Clear.	body.	
N40 E90 PLOWZONE	RICH 1063	BRICK FRAGMENT	1	Brick fragment.	miscellaneous	
N40 E90 PLOWZONE	RICH 1064	DAUB	2	Daub.	miscellaneous	
N40 E90 PLOWZONE	RICH 1065	NAIL FRAGMENT	2	Nail, cut.	proximal.	AD 1790 TO 1990
N40 E90 PLOWZONE	RICH 1066	IRON LUMP	3	Iron lump.	miscellaneous	
N40 E90 PLOWZONE	RICH 1067	CINDER	1	Cinder.	miscellaneous	
N40 E90 PLOWZONE	RICH 1068	COAL	2	Coal.	miscellaneous	
N40 E90 PLOWZONE	RICH 1069	UNIDENTIFIABLE	1	Unidentifiable.	miscellaneous	
N40 E90 PLOWZONE	RICH 1070	STRAP FRAGMENT	1	Strap fragment.	distal.	
N40 E90 PLOWZONE	RICH 1071	RIVET WITH	1	Rivet with leather attached.	complete.	
N40 E90 PLOWZONE	RICH 1072	FLAKE	1	Flake, interior.	complete.	
N40 E90 PLOWZONE	RICH 1073	SCRAPER	1	Hafted endscraper.	complete.	